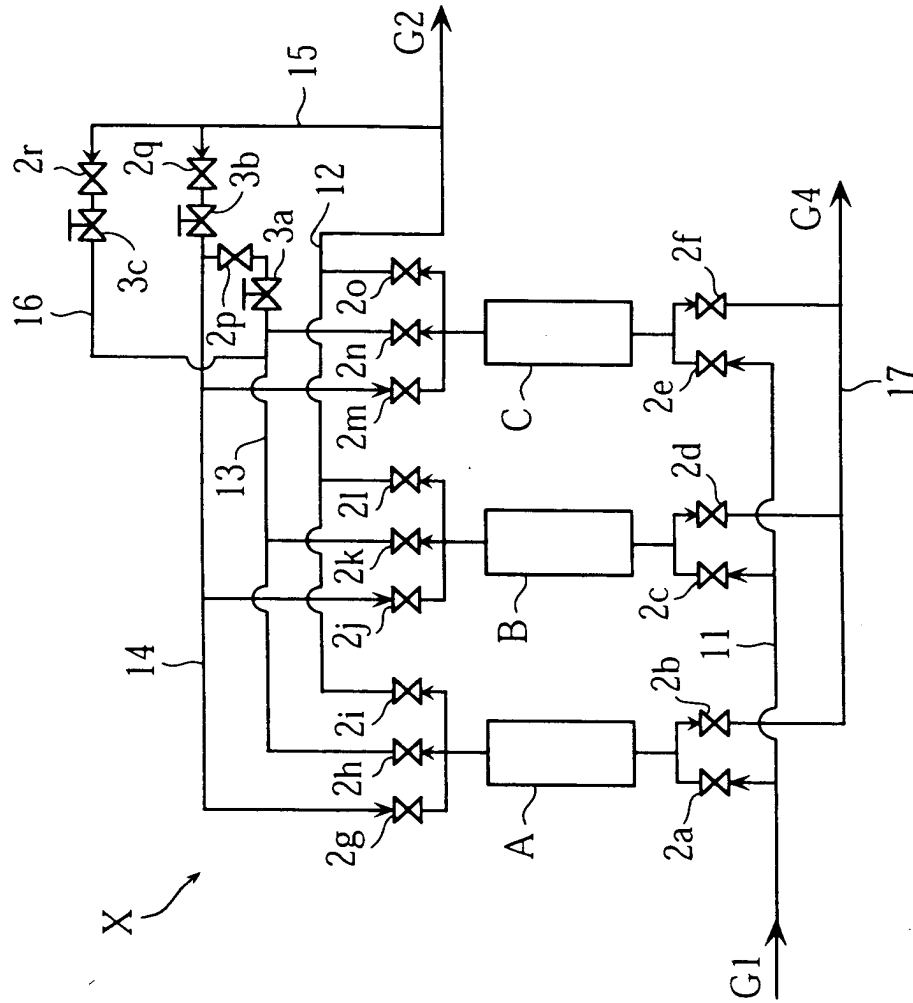


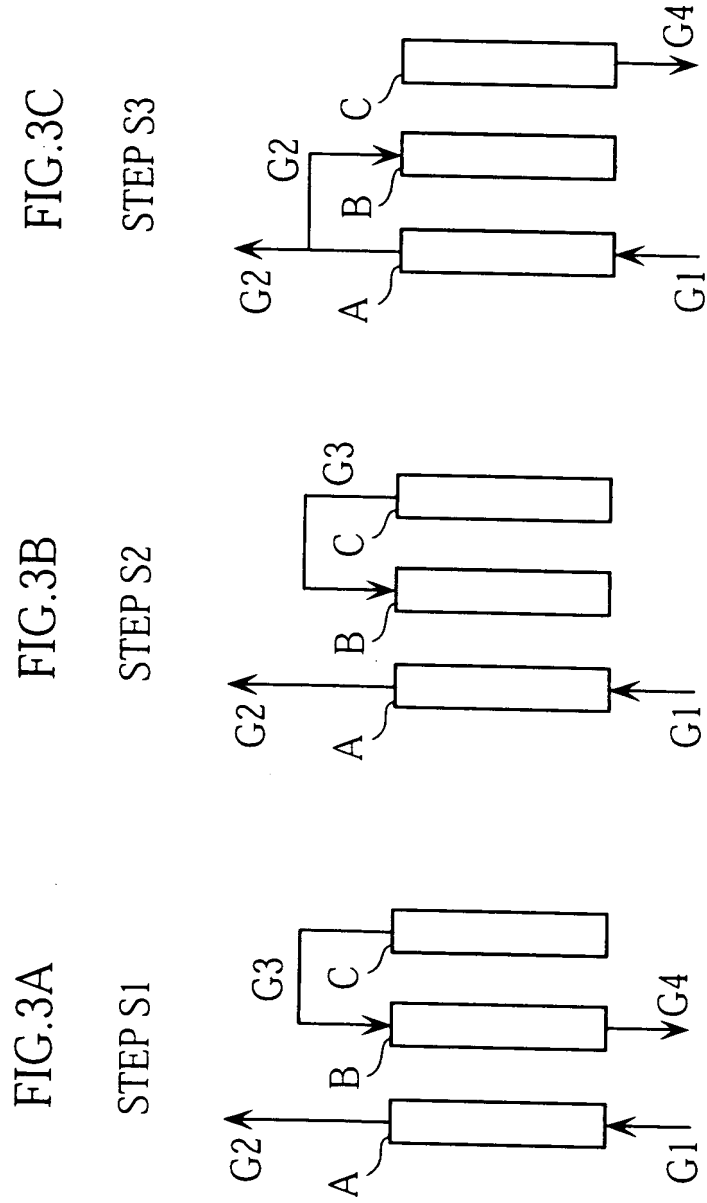
FIG. 1



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FIG.2

STEP	S1	S2	S3	S4	S5	S6	S7	S8	S9
ADSORPTION COLUMN A	ADSORPTION	ADSORPTION	ADSORPTION	1st DEPRESSURI-ZATION	2nd DEPRESSURI-ZATION	DESORPTION	SCRUBBING	1st DEPRESSURI-ZATION	2nd DEPRESSURI-ZATION
ADSORPTION COLUMN B	SCRUBBING	1st DEPRESSURI-ZATION	2nd DEPRESSURI-ZATION	ADSORPTION	ADSORPTION	ADSORPTION	1st DEPRESSURI-ZATION	2nd DEPRESSURI-ZATION	DESORPTION
ADSORPTION COLUMN C	1st DEPRESSURI-ZATION	2nd DEPRESSURI-ZATION	DESORPTION	SCRUBBING	1st DEPRESSURI-ZATION	2nd DEPRESSURI-ZATION	ADSORPTION	ADSORPTION	ADSORPTION
VALVE 2a	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2b	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	CLOSED	CLOSED
VALVE 2c	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED
VALVE 2d	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN
VALVE 2e	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN
VALVE 2f	CLOSED	CLOSED	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2g	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN
VALVE 2h	CLOSED	CLOSED	CLOSED	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2i	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2j	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	OPEN	OPEN	CLOSED
VALVE 2k	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2l	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED
VALVE 2m	CLOSED	CLOSED	CLOSED	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2n	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN
VALVE 2o	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	CLOSED
VALVE 2p	OPEN	OPEN	CLOSED	OPEN	OPEN	CLOSED	OPEN	OPEN	CLOSED
VALVE 2q	CLOSED	CLOSED	OPEN	CLOSED	CLOSED	OPEN	CLOSED	CLOSED	OPEN
VALVE 2r	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED



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FIG.4C

STEP S6

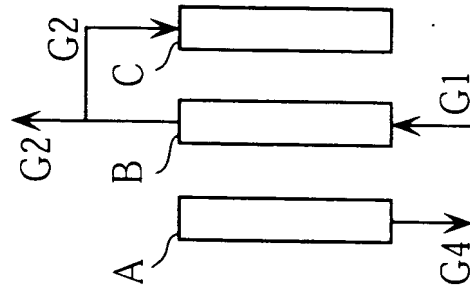


FIG.4B

STEP S5

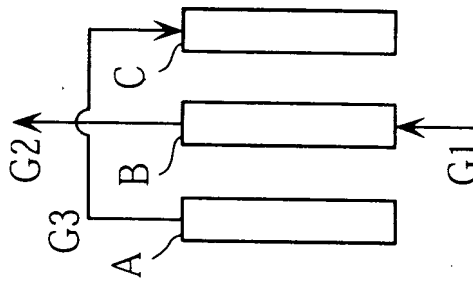


FIG.4A

STEP S4

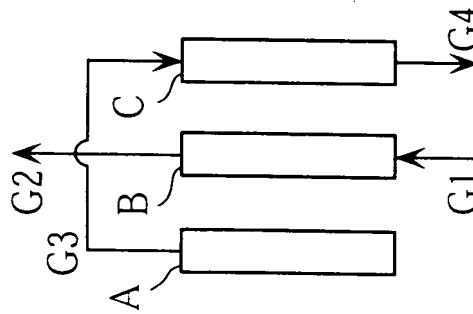


FIG. 5C

STEP S9

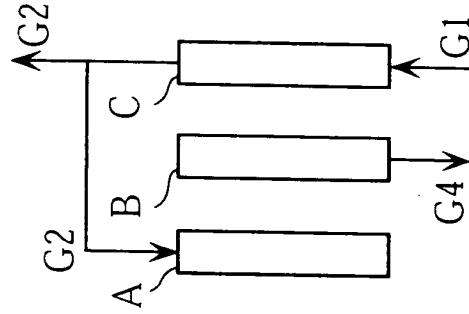


FIG. 5B

STEP S8

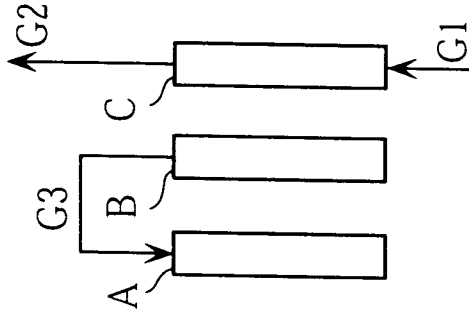
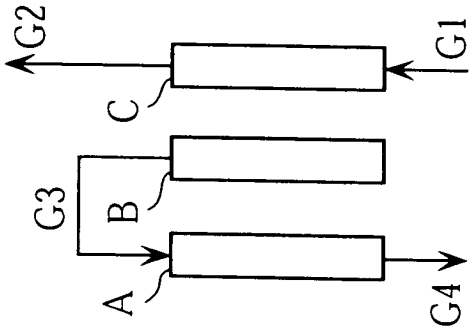


FIG. 5A

STEP S7



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FIG. 6

STEP	S1	S1'	S2	S3	S4	S4'	S5	S6	S7	S7'	S8	S9
ADSORP -TION COLUMN A	ADSORP -TION	ADSORP -TION	ADSORP -TION	ADSORP -TION	1st DEPRESSU -RIZATION	STANDBY	2nd DEPRESSU -RIZATION	DESORPTI ON	1st SCRUBBIN G	2nd SCRUBBIN G	1st PRESSURI -ZATION	2nd PRESSURI -ZATION
ADSORP -TION COLUMN B	1st SCRUBBIN G	2nd SCRUBBIN G	1st PRESSURI -ZATION	2nd PRESSURI -ZATION	ADSORP -TION	ADSORP -TION	ADSORP -TION	ADSORP -TION	1st DEPRESSU -RIZATION	STANDBY	2nd DEPRESSU -RIZATION	DESORP -TION
ADSORP -TION COLUMN C	1st DEPRESSU -RIZATION	STANDBY	2nd DEPRESSU -RIZATION	DESORP -TION	1st SCRUBBIN G	2nd SCRUBBIN G	1st PRESSURI -ZATION	2nd PRESSURI -ZATION	ADSORP -TION	ADSORP -TION	ADSORP -TION	ADSORP -TION
VALVE 2a	OPEN	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2b	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	CLOSED	CLOSED
VALVE 2c	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2d	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN
VALVE 2e	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN
VALVE 2f	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2g	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN
VALVE 2h	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2i	OPEN	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2j	OPEN	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2k	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	OPEN	CLOSED
VALVE 2l	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2m	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2n	OPEN	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
VALVE 2o	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN
VALVE 2p	OPEN	OPEN	OPEN	CLOSED	OPEN	OPEN	OPEN	CLOSED	OPEN	OPEN	OPEN	CLOSED
VALVE 2q	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	OPEN
VALVE 2r	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	CLOSED

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FIG. 9

STEP S7'

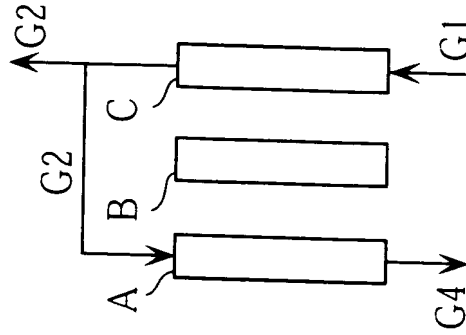


FIG. 8

STEP S4'

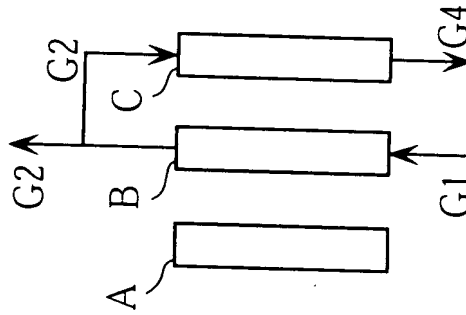


FIG. 7

STEP S1'

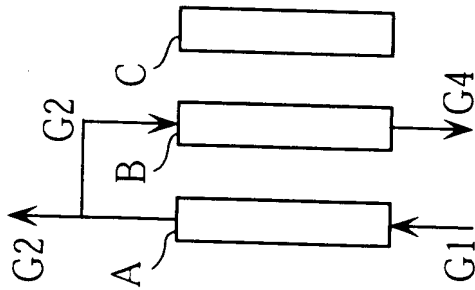


FIG.10

	FINAL PRESSURE OF DEPRESSURIZATION (kPa)	HYDROGEN GAS PURITY (vol%)	HYDROGEN GAS RECOVERY RATE (%)
EXAMPLE 1	650 (1st) 325 (2nd)	99.999	76.5
EXAMPLE 2	520 (1st) 260 (2nd)	99.999	78.3
EXAMPLE 3	450 (1st) 225 (2nd)	99.999	80.2
EXAMPLE 4	370 (1st) 185 (2nd)	99.999	78.0
COMPARATIVE EXAMPLE	425 (SINGLE)	99.999	69.5

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FIG. 11C
PRIOR ART

STEP III

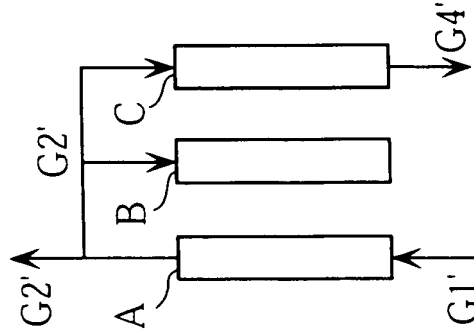


FIG. 11B
PRIOR ART

STEP II

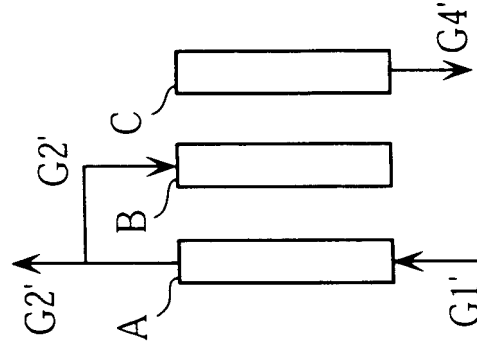


FIG. 11A
PRIOR ART

STEP I

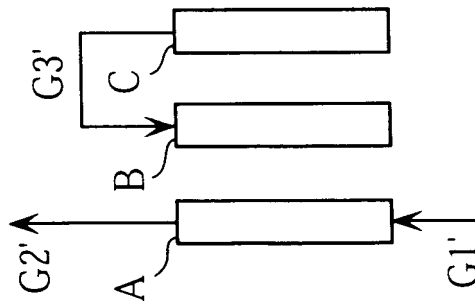


FIG.12C
PRIOR ART

STEP VI

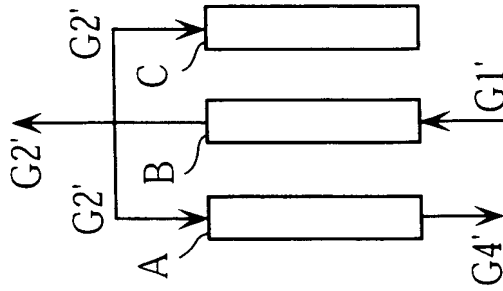


FIG.12B
PRIOR ART

STEP V

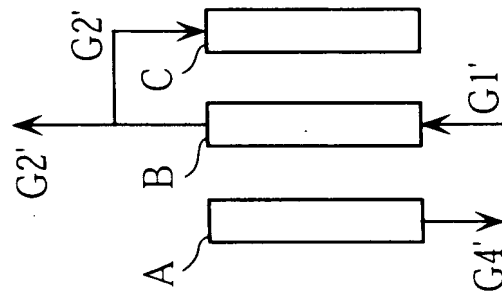


FIG.12A
PRIOR ART

STEP IV

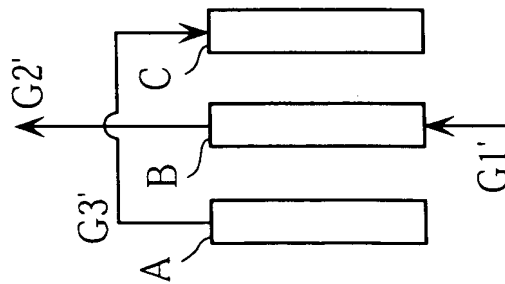


FIG.13C
PRIOR ART

STEP IX

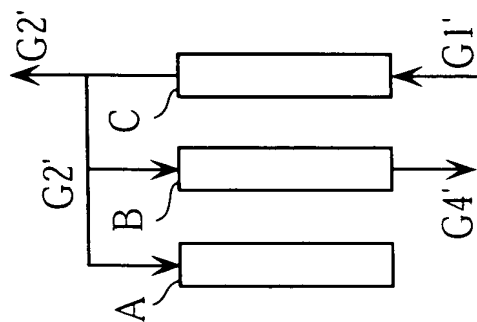


FIG.13B
PRIOR ART

STEP VIII

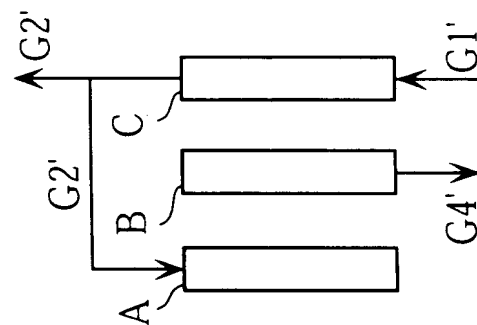


FIG.13A
PRIOR ART

STEP VII

